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Industry Best Practices In Inventory Counts

INTRODUCTION

Creating an effective and cost-efficient government has long been a public expectation. Achieving this goal will require federal agencies to produce useful, reliable, and timely information that can be used daily by the Congress, federal managers, and other decision makers. Inventory is one of the major areas in the federal government where useful, reliable, and prompt data are still generally not available.

OBJECTIVES

To provide a framework and guide that federal managers can use to improve the accuracy and reliability of the government's inventory and related property data.

PLANNING

The Accountable Property Officer is responsible to properly plan and execute physical inventories and location surveys to continuously improve property system accuracy; however, the type (method) and scope (intention) of the physical inventory function depends largely on management's expectations. Such expectations include ensuring readiness; testing for existence, completeness, and valuation; maintaining internal controls; or meeting other mission objectives.

Physical inventory plans must be coupled with an awareness of the item's sensitivity, to include its acquisition cost, its security classification, and/or its criticality.

PLANNING

In planning and executing physical inventories, one must consider local and higher policies, regulations and instructions to be in compliance with those documents. To provide a framework and guide that federal managers can use to improve the accuracy and reliability of the government's inventory and related property data, the Government Accounting Office (GAO) published an Executive Guide (GAO-02-447G). The Executive Guide describes the fundamental practices and procedures used in the private sector to achieve consistent and accurate physical counts. It summarizes the fundamental principles that have been successfully implemented by companies recognized for their outstanding record of inventory management. Also, it explains and describes leading practices from which the federal government may be able to draw lessons and ideas. The guide applies to most forms of federal inventory with concepts and controls discussed which could be applied to property, plant, and equipment physical counts; however, certain of the discussed practices may not be applicable.



NOTE:

The GAO report can be found at: <http://www.gao.gov> (search for GAO Reports / GAO-02-447G).

PLANNING TOOLS

The remainder of this chapter provides tools to assist in the planning process as it relates to Industry Best Practices. These tools are:

- Inventory Management Implementation Checklist
- Industry Best Practices (12) Key Factors

Key Factor 1: Establish Accountability

One of the key factors in developing and implementing an accurate physical count process is to establish accountability. Establishing accountability for the inventory physical count processes requires setting performance goals and holding the appropriate level of personnel responsible for the overall physical inventory process.

CHARACTERISTICS

1. Set inventory record accuracy goals at 95 percent or better.
2. Set other performance expectations.
3. Establish accountability and responsibility for the overall physical count.

PERFORMANCE GOALS

Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization.

LEVEL OF ACCOUNTABILITY

Holding the appropriate level of management responsible and answerable for the overall inventory process. Once policies and procedures have been established and documented, they must be regularly reviewed and updated. Policies and procedures that are regularly reviewed and revised to reflect changes in the process and tasks of the physical count reinforce management's commitment.

STRATEGIES TO CONSIDER

To establish accountability for the physical count process, senior executives could consider the following:

- Establish performance goals for the physical count that are aligned with the organization's mission, strategic goals, and objections.
- Establish high measurement goals and continuously assess the organization's progress in achieving and maintaining those goals.
- Identify the line of authority and responsibility from top management to the level of organization responsible for accomplishing consistent accurate physical counts of inventory and related property.
- Develop employee/supervisor performance measurement systems to hold appropriate personnel accountable for achieving the organization's performance goals.

Key Factor 2: Establish Written Policies

Establishing and documenting policies and procedures are essential to an effective and reliable physical count. Policies and procedures demonstrate management's commitment to the inventory physical count process and provide to all personnel's clear communication and comprehensive instructions and guidelines for the count.

CHARACTERISTICS

1. Document policies and procedures for entire physical count process.
2. Regularly review and update established policies and procedures.

PERFORMANCE GOALS

Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization

LEVEL OF ACCOUNTABILITY

Once policies and procedures have been established and documented, they must be regularly reviewed and updated. Policies and procedures that are regularly reviewed and revised to reflect changes in the process and tasks of the physical count reinforce management's commitment. Up-to-date policies and procedures provide a reliable and credible resource to employees, encourage compliance with management's directions, and form the basis for a reliable physical count process.

STRATEGIES TO CONSIDER

To establish effective written policies and procedures for the physical count process, senior executives should consider the following:

- Develop broad policies affecting inventories that are designed to attain management's goals.
- Develop written procedures for all aspects of the physical count processes, including:
 - Defining the current process and the individual tasks associated with the process and
 - Procedures for and examples of filing and completing required paper work.
- Regularly review and revise policies and procedures for changes in the process and individual tasks.

Key Factor 3: Select An Approach

The process of counting physical inventory is an essential control for operational efficiency and financial reporting. A physical count, when properly executed, verifies the existence of physical assets and completeness and accuracy of records. Cycle counting is a method by which a portion of the inventory is counted either daily, weekly, or monthly until the entire inventory has been counted over a period of time. The wall to wall approach the entire inventory is counted at a point in time, usually as of the end of an annual or interim period.

CHARACTERISTICS

1. Cycle counting supports operational and financial needs of the organization.
2. A wall to wall physical count supports financial reporting at a point in time.
3. In selecting the best physical count approach management should consider:
 - the objective or purpose of the count and timing issues involved
 - the capabilities of the inventory system
 - the existing control environment over the inventory system and processes
 - and the characteristics of the inventory

PERFORMANCE GOALS

1. Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization.
2. The two predominant approaches used by the leading-edge companies to physically count inventory are cycle counting and wall to wall.

LEVEL OF ACCOUNTABILITY

Develop employee/supervisor performance measurement systems to hold appropriate personnel accountable for achieving the organization's performance goals. Determining which approach or combination of approaches is the most appropriate for the organization is a key management decision.

STRATEGIES TO CONSIDER

To establish accountability for the physical count process, senior executives could consider the following:

- Establish performance goals for the physical count that are aligned with the organization's mission, strategic goals, and objections.
- Establish high measurement goals and continuously assess the organization's progress in achieving and maintaining those goals.
- Identify the line of authority and responsibility from top management to the level of organization responsible for accomplishing consistent accurate physical counts of inventory and related property.
- Develop employee/supervisor performance measurement systems to hold appropriate personnel accountable for achieving the organization's performance goals.

Key Factor 4: Determine Frequency Of Counts

Counting an appropriate amount of the total inventory at a point in time or over a period of time with regular frequency helps to provide accurate inventory records for operational decisions and financial reporting. Management should count an appropriate amount of the total inventory by determining the desired frequency of counts and selecting a method of choosing individual items or locations to count.

CHARACTERISTICS

1. Determine which items to count and how frequently.
2. Choose a method of selecting individual items or locations for count.

PERFORMANCE GOALS

In order to count an appropriate amount of the total inventory, management must decide which inventory items to count and how frequently those items should be counted. The most desirable goal would be to count all of the inventory items at least once a year.

LEVEL OF ACCOUNTABILITY

It is not always practical to give the same treatment to each item; it may be desirable to segment the inventory into identifiable classes and assess the risk for each segment or class to determine the frequency of counts. For instance, management may determine that items critical to the production process, resulting in a high risk to the organization, should be counted every day, week, or month. Management should exert the highest degree of control (frequent counts) on the most important items, and the least control on less important items. Management may determine that there are many degrees and importance depending upon the organization's needs and inventory characteristics. Management should consider the dollar amount, criticality to operations and susceptibility to theft or fraud when segmenting the inventory and determining the frequency of counts for each segment.

METHODS OF SELECTING ITEMS

Once management has determined which items to count and how frequently, a method of choosing individual items or locations must be determined. The method should ensure that all items within the identified segments are chosen to achieve the desired frequency and an accurate count. The most common method among leading edge locations performing cycle counts was to select item sequentially by rows or geographic area within the warehouse or plant and work their way through the facility over a period of time.

Other methods used by the leading edge locations to select individual items or locations for count included a random selection, weighted selection toward higher dollar volume or value items, selection based on management's discretion.

STRATEGIES TO CONSIDER

To determine the frequency of the physical counts, senior executives should consider the following:

- Assess the resources and timing needed to conduct the count.
- Identify segments or classes of the inventory and assess each segments risk to determine the degree of control needed based on:
 - Activity or turnover,
 - Dollar value,
 - Sensitive or classified items,
 - Items critical to production or mission readiness, and
 - Items susceptible to misappropriation, including theft.
- Select a frequency to count each segment based on the assessed risk and degree of control needed such as:
 - Daily,
 - Weekly, monthly.
 - Semi-annually, or
 - Annually
- Determine a method of selecting individual items for count such as
 - Sequentially by row or area within the warehouse or facility,
 - Random selection, or
 - Weighted selection towards higher dollar, higher activity items

Key Factor 5: Maintain Segregation Of Duties

One of the key factors in developing and implementing an accurate physical count process is to establish accountability. Establishing accountability for the inventory physical count processes requires setting performance goals and holding the appropriate level of personnel responsible for the overall physical inventory process.

CHARACTERISTICS

- | | |
|--|---|
| 1. <u>Segregation of Duties</u>
Physical custody of assets
Processing and recording of assets
Approval of transactions | 2. <u>Mitigating Controls</u>
Blind counts
Increased supervision
Two-member count teams |
|--|---|

PERFORMANCE GOALS

Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization.

LEVEL OF ACCOUNTABILITY

Segregation of duties, a commonly used and widely accepted internal control and business practice, entails dividing or segregating key duties and responsibilities among different people. Implemented effectively, this type of control reduces risk of error and fraud so that no single individual can adversely affect the accuracy and integrity of the count.

In situations where segregation of duties is not practical or cost-effective, other controls should be employed to mitigate the recognized risk. Such mitigating control procedures include blind counts (meaning the counter does not know how many items are supposed to be there before or during the count process), increased supervision, and applying dual control by having activities performed by two or more people.

Mitigating and dual controls also include:

- Increasing supervision
- Using two-member count teams

KEY AREAS OF SEGREGATION

- physical custody of assets
- processing and recording of transactions
- approval of transactions

Ideally personnel performing any one of the above functions would not also have responsibilities in either of the other functions.

PHYSICAL CUSTODY OF ASSETS

To best accomplish segregation of duties, the normal job activities of the person performing the physical count should not include custodial activities such as receiving, shipping, and storing physical assets.

TRANSACTION PROCESSING AND RECORDING

Personnel recording transactions that affect the on-hand quantities should not be responsible for the physical custody of the inventory or approval of adjustments. Segregation between the duties of recording transactions that result from the physical count and duties of custody or approval is essential to provide for the integrity of the physical count process.

APPROVAL OF TRANSACTIONS

Personnel approving transactions that affect on-hand inventory balances should not be responsible for the physical custody of the inventory or recording transactions.

STRATEGIES TO CONSIDER

To implement and maintain effective segregation of duties in the physical count process, senior executives could consider the following:

- Determine there are available resources to conduct the count and whether they have the appropriate knowledge and experience of the inventory and counting.
- Analyze the normal job duties of personnel performing the physical count, considering who has responsibility for:
 - Custody or physical control of the inventory,
 - Processing and recording of inventory transactions, and
 - Approval of transactions and adjustments.
- Determine whether controls may be impaired if any one person has been given responsibility for more than one activity noted in the previous strategy.
- Perform a risk versus cost analysis of any apparent control risks, and determine whether:
 - Duties may be reassigned, or
 - Mitigating controls can be implemented, or
 - Risk is at an acceptable level.

Key Factor 6: Enlist Knowledgeable Staff

Inventory counters who knowledgeable about the inventory items being counted and the inventory counting procedures are critical to performing effective and accurate physical counts. It is important for the inventory counters to be adequately trained. Experienced, knowledgeable inventory counters increase the accuracy and efficiency of the physical count.

CHARACTERISTICS

1. Counters are knowledgeable about the inventory items.
2. Counters are knowledgeable about the count process.
3. Counters are well trained.

PERFORMANCE GOALS

Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization

LEVEL OF ACCOUNTABILITY

Holding the appropriate level of management responsible and answerable for the overall inventory process establishes accountability for the physical inventory and is essential to achieving consistently accurate counts. Accountability within an organization should exist from the top of the organization to the lowest. Identify the line of authority and responsibility from top management to the level of organization responsible for accomplishing consistent accurate physical counts of inventory and related property.

COUNTERS ARE KNOWLEDGEABLE ABOUT THE INVENTORY ITEMS

Leading edge companies normally use in-house personnel—whether a dedicated group or warehouse personnel—who have been chosen expressly because of;

- their prior experience with and knowledge of inventory items.
- more likely to correctly identify the items they are counting and provide accurate item descriptions and count quantities, decreasing the likelihood of needing second or third counts.
- Are more familiar with the layout of plant and warehouse facilities and the movement of items within and between these facilities.
- Are more aware of areas where items may be placed.
- Knowledgeable about how items are packaged and stored as well as how items are used in a production line, so they can quickly and accurately count assigned items.

COUNTERS ARE KNOWLEDGEABLE ABOUT THE COUNT PROCESS

Inventory counters should be knowledgeable about the count process to perform efficient and accurate physical counts. Leading-edge locations performing cycle counts typically use individuals whose sole function is conducting physical inventories.

COUNTERS PERSONNEL ARE WELL TRAINED

At leading-edge locations this was typically accomplished through formal classroom training, on-the-job training, or a mix of the two.

STRATEGIES TO CONSIDER

To enlist knowledgeable staff in the physical count process, senior executives should consider:

- The amount of resources available to conduct the count.
- Experience and knowledge of the inventory and count process of the count team.
- Frequency of counts or time necessary to complete the count.
- Establishing a separate inventory group of dedicated counters.
- Assigning or promoting personnel with prior experience in the warehouse and knowledge of the inventory counting position

Providing on the job and classroom training of the count process to counters, supervisors, and personnel researching variances on aspects such as:

- Types of inventory,
- Warehouse layout,
- Unit of measure,
- RF devices,
- Computer system,
- Research (if applicable), and
- Supervision (if applicable)

Key Factor 7: Provide Adequate Supervision

Supervision, a key factor of the count process, includes directing the efforts of personnel and determining that the objectives of the inventory count have been accomplished. Elements of supervision include providing instructions and training, solving problems, and reviewing the work performed.

CHARACTERISTICS

1. Provide instructions and training.
2. Assign count team and responsibilities.
3. Review count sheets.
4. Ensure that all items are counted.

PERFORMANCE GOALS

Supervisor responsibilities include:

- Ensuring that counters are available to count
- Selecting count team members
- Assigning count team responsibilities,
- Ensuring the count is completed on time.
- Establish high measurement goals and continuously assess the organization's progress in achieving and maintaining those goals.

LEVEL OF ACCOUNTABILITY

The use of direct or indirect supervision at the leading-edge locations was generally dependent upon management's determination of the adequacy of segregation of duties. All leading-edge locations performing wall to wall physical counts used direct, on the floor supervision, as one of their controls to reduce the risks discussed above.

STRATEGIES TO CONSIDER

To provide adequate supervision over the physical count process, senior executives should consider the following:

- The number of resources or teams performing the physical count.
- Frequency of the counts or the time necessary to complete the count.
- Knowledge and experience of the personnel performing the count.
- Whether there is adequate segregation of duties from responsibilities of asset custody.
- The assigned responsibilities of the supervisor such as:
 - The availability of count personnel,
 - Selection of count team members,
 - Assignment of count responsibilities,
 - Monitoring of performance, and
 - Ensuring counters are following procedures and complete counts in a timely manner.
- Size of the warehouse or area subject to count.
- The number and complexity of items to be counted.
- Other controls that may be in place during the count, such as the performance of blind counts.

Key Factor 8: Perform Blind Counts

A blind count refers to the performance of a physical inventory count without the knowledge of, or access to, the on-hand quantity balance in the inventory records.

CHARACTERISTICS

1. No prior knowledge of on-hand balances.
2. Limited or no access to inventory system.

PERFORMANCE GOALS

Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization

LEVEL OF ACCOUNTABILITY

Blind counts offer the greatest degree of assurance of accurate and reliable counts. If the record on-hand quantity is provided to the counters, there is a risk that the counters will not actually perform the count.

STRATEGIES TO CONSIDER

To effectively use blind counts during the physical count, senior executives should consider the following:

- Tools used to perform the count (count cards, count sheets, or RF Guns).
- Capability of the inventory system to not provide quantities on count cards or sheets, and restrict access to on-hand balances prior to and during the performance of the count, except for authorized personnel.
- Personnel performing the physical count and whether there is segregation so duties between the responsibilities of asset custody and physical counts.
- Personnel's experience and knowledge of the inventory items and the count process.

Key Factor 9: Ensure Completeness Of The Count

A complete count requires that (1) the inventory being counted include all the items that should be present and not include items that are not a part of the inventory and (2) control of the count process is maintained so that all inventory items that should get counted do in fact get counted.

CHARACTERISTICS

1. Cutoff procedures.
2. Pre-inventory count activities.
3. Control methods for count completion.

PERFORMANCE GOALS

To facilitate the inventory being completely accounted for and accurately counted, there are a number of considerations that need to be made before the actual count begins. These considerations fall into three major categories cutoff procedures, pre-inventory count activities and control methods for count completion.

Cutoff Procedures

Cutoff is the process of (1) controlling the movement of items between locations, such as in shipping, receiving, production, and warehousing and (2) coordinating the timing and verifying the movement of items with the related quantity changes in the inventory system.

Pre-inventory Activities

Pre-inventory activities, primarily physical location preparation, are accomplished prior to the physical count in order to increase the efficiency and effectiveness of the count. Physical location preparation typically includes:

- Organizing work areas and storage locations
- Identifying and segregating items
- Ensuring that all inventory items have labels or identification
- Verifying that items are in the correct location
- Pre-counting slow moving items
- Identifying excess/obsolete inventories

Control Methods For Count Completion

There should be a system to ensure that all inventory items are considered for count, including items on the receiving dock. In the warehouse, in the shipping area, in tractor-trailers, and at outside locations, such as owned or leased warehouses, public storage, or any other locations having inventory owned by the organization.

STRATEGIES TO CONSIDER

To ensure completeness of the physical count, senior, executives should consider:

- The organization's operating environment, time of operations, and its ability to:
 - Suspend operations during the physical count
 - Perform counts when there is limited movement of the inventory, such as nights or weekends
 - Prevent movement of items subject to count on the day of count only
- Reliability of the inventory system to accurately capture and track transactions affecting the on-hand balances.
 - Existence of slow moving or excess obsolete inventory items that could be segregated and pre-counted.
 - Existence of inventory stored at outside locations and the personnel or organization responsible for verifying its physical existence.
 - Use of pre-numbered count sheets or tags and reconciliation of the numbers issued to the numbers returned.
 - Reconciliation of items selected for count to actual items counted.
 - Performance of additional counts where items are selected from the floor and compared to the inventory system.

Key Factor 10: Execute Physical Count

Practices discussed in earlier key factors lay the foundation for completion of physical count procedures

CHARACTERISTICS

1. Communicate information to the counter.
2. Verify item data and quantity.
3. Capture and compare the physical count.
4. Perform requisite number of counts.
5. Complete counts in timely manner.

PERFORMANCE GOALS/LEVEL OF ACCOUNTABILITY

Performance goals establish targets for the achieving management's objectives and contribute to overall mission of the organization. Properly executing the count provides accurate results for comparison of the count to the recorded balances and the posting of adjustments to the inventory records for financial and operational decision making.

Communicate Information To The Counter

Communication of appropriate information ensures that counters have the necessary information to perform the count (i.e. items to be counted). Leading-edge location's communication to counters is usually in the form of a list of items to count, such as count sheets, or assigned zones to count, usually including stock location, stock number, description, and unit of measure.

Verify Item Data And Quantity

Verification of data supplied to the counter ensures that the significant information in the inventory record is consistent with the physical information about the item.

Capture And Compare The Count

The physical count includes the instrument or method used by the counter to record the results of the physical count for comparison to the on-hand balance in the inventory system. The leading-edge locations used a number of techniques to record the results of the physical count. Some use traditional methods, such as manual count sheets or cards, while others used technical tools, such as RF guns.

Perform Requisite Number Of Counts

Number of counts refers to the number of times an item will be counted before a final count is accepted. The number of counts by leading-edge locations ranged from as few as one to any number determined by management to be appropriate.

Complete Counts In A Timely Manner

Timely counts are important due to management's reliance on the information in the inventory system for making operational decisions. Whether completing a single count or multiple counts, the leading-edge locations expected their count teams to complete their assignments as quickly as possible.

STRATEGIES TO CONSIDER

To effectively execute the physical count, senior executives should:

- Determine the data to be verified by the count by considering:
 - Knowledge and experience of the personnel performing the count
 - The item data maintained in the inventory system or on location labels
 - Whether blind counts are to be performed, requiring the restriction of access to on-hand balances
- Determine the method to be used to capture and compare the count, such as count cards, sheets, or RF Guns by considering:
 - The capability of the inventory system
 - Ability to use RF devices
- Determine number of counts to perform by considering:
 - Resources necessary to perform additional counts
 - Personnel performing additional counts and their segregation of duties from asset custody and their knowledge and experience of the inventory and count process
 - Time necessary to complete additional counts promptly
 - Characteristics of the inventory (unit of measure, size, dollar value, classification, and size variance in quantity and dollar value) to establish tolerances for additional counts
- Develop employee/supervisor performance measurement systems to hold appropriate personnel accountable for achieving the organization's performance goals.

Key Factor 11: Perform Research

Even with a strong control environment and sound physical count procedures, it is not unusual for there to be differences in quantities between the physical count and the record.

CHARACTERISTICS

1. Perform required research.
2. Complete research in a timely manner.
3. Refer variances to management and security for approval and investigation.

PERFORMANCE GOALS

Research of the cause, sometimes referred to as “root cause analysis,” and reconciliation to the difference is an essential element of an effective physical count process. Performance goals establish targets for the achieving management’s objectives in the “root cause analysis” and reconciliation.

LEVEL OF ACCOUNTABILITY

Holding the appropriate level of management responsible and answerable for the overall inventory process. Including the research, when properly conducted, provides support for adjustment to the inventory records, identifies the causes of variances between the physical count and inventory records, provides management with information with which to implement corrective actions, and establishes accountability for the physical inventory and is essential to achieving consistently accurate counts. Accountability within an organization should exist from the top of the organization to the lowest.

Required Research

Research is the process of investigating a discrepancy often referred to as a variance, between the physical count and the on-hand balance.

Timely Research

Prompt completion of required research is key to identifying and correcting the causes of variances. Leading-edge locations performed and completed research either the same day as the original count or by the end of the following day.

Approval And Referral Of Adjustments

Approval of adjustments by management and referral of potential fraud or theft to investigators helps ensure reliable counts and research. We found that all of the leading-edge locations routinely referred adjustments to management for approval. As the dollar amount of the adjustment increased, the approval level within the company increased.

STRATEGIES TO CONSIDER

To effectively research variances arising from the physical count, senior executives could:

- Establish tolerances or criteria for selection of variances to research such as:
 - Effect on operations or mission readiness
 - Quantity and dollar value
 - Characteristics of the items with the variance, such as sensitive, classified, or items susceptible to fraud or theft
- Develop processes for how to perform research, such as procedures for reviewing movement of items during the count, transaction histories, and shipping and receiving documents, by:
 - Reliability of the inventory system to accurately capture transactions affecting the on-hand balance
 - Time necessary to complete the research promptly
 - Knowledge of the personnel performing the research
- Establish error codes that would identify the cause of variances
- Set approval levels for adjustments that move up the chain
- Define responsibility for reviewing adjustments and trends on sensitive and classified items and items susceptible to fraud or theft, and notify security or law enforcement.

Key Factor 12: Evaluate Count Results

Evaluating the results of the physical count is essential to an accurate and effective physical count process. The evaluation of the results gives management the necessary information for measuring the effectiveness of (1) the physical count and (2) corrective actions or improvements to the inventory process and system.

CHARACTERISTICS

1. Measure the results of the physical count using performance measures.
2. Communicate the results of the physical count to counters, management, and warehouse personnel.
3. Modify policies and procedures to address necessary changes in the physical count process.

PERFORMANCE GOALS

The results of the physical count can be measured several ways. Calculating an inventory record accuracy rate, summarizing the number and dollar value of adjustments, errors, or items counted and tracking and analyzing error code frequencies are three ways to measure results.

Performance Measures

A common method of measuring the results of the physical count is the calculation of an inventory record accuracy rate. Inventory record accuracy rates measure the degree of agreement between the balance in the inventory records and the physical count.

Communication Of Results

Communicating the results of each physical count is essential to achieving and maintaining accurate, reliable counts and records and improving the results of future physical counts. The results of the count should be communicated to the people doing the work, including counters and warehouse employees, and to management.

Modification Of Policies And Procedures

Once the results of the physical count have been evaluated and communicated, it is useful to “close the loop” of the physical count by considering indicated changes to the inventory count and management process and making appropriate modifications to policies and procedures. Management’s assessment of the results of the physical count and employee feedback is useful in determining the effectiveness of the physical count.

LEVEL OF ACCOUNTABILITY

Holding the appropriate level of management responsible and answerable for the overall inventory process establishes accountability for the physical inventory and is essential to achieving consistently accurate counts. Accountability within an organization should exist from the top of the organization to the lowest.

STRATEGIES TO CONSIDER

To evaluate the results of the physical count process, senior executives should consider the follow:

- Establish performance measures that are aligned with organizational objectives and strategies and that are useful in evaluating the results of the physical count
- Determine the methods to be used to measure performance of the count by
 - Defining an error for purposes of measuring performance
 - Establishing tolerances based on characteristics of the inventory and quantity or dollar value of the variances to be considered in error
- Establish mechanisms to communicate results and performance measures to counters, warehouse personnel, and managers
- Establish routine meetings with managers from all aspects of the inventory process, including the physical count, receiving, shipping, ordering, stocking, and production, to discuss results and measures and evaluate the causes of the errors to identify corrective actions and assign responsibility for those actions
- Use results and performance measures as a basis to make changes to the process and modify existing policies and procedures to reflect changes in the process

Implementation Checklist

Planning, Conducting, Researching, and Evaluating a Count of Physical Inventory

(An Implementation Checklist)

This checklist is provided as an aid to making and documenting decisions in the planning, conducting, and/or auditing of the inventory count process and researching and evaluating its results. It is presented in the chronological order of the major steps of the process. References are provided to the **12 key factors** in the body of the report, which provide guidance in considering the issues and factors involved in the decision-making processes.

The checklist is segregated into the following four major sections, with eleven steps to consider categorized in the numbered subtitles, as follows:

Planning	1) Select an approach to the count 2) Determine count frequency 3) Organize the count team(s)
Counting	1) Accomplish appropriate cutoff 2) Perform pre-inventory activities 3) Count the inventory
Research and Adjustments	1) Perform research 2) Adjust the record
Evaluation of Results	1) Determine the record accuracy rate 2) Consider other performance measures 3) Communicate the results of the count

Planning	1) Select an approach to the count		
	2) Determine count frequency		
	3) Organize the count team(s)		
1) Select an approach —The two basic approaches most used by leading-edge companies to count inventory are (a) cycle counting a portion of items over time or (b) a physical wall to wall count. The approach or combination of approaches that is best for your inventory will depend on specific circumstances. Management should consider the following major issues when making this decision.			
Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) the guidance provided in existing policies and procedures	Establish written policies		
b) what approach(es) your inventory system will support?	Select an approach		
c) the amount of time available and/or deadline issues involved?	Select an approach		
d) the primary objectives in conducting a physical count?	Select an approach		
e) whether existing system accuracy supports reliance on it?	Select an approach		
f) natural or logical segments of your inventory?	Select an approach		
Document your final conclusions for selecting an approach below. (e.g., The cycle counting approach is selected for the (ABC) segment(s) and/or the wall to wall counting approach is selected for (XYZ) segment(s).)			

2) Determine count frequency—Selecting how many, how often, and which items to count may not be as straightforward as it seems. Risk factors of mission and operational criticality, dollar values, quantity significances, rate of turn-over and pilferability, along with the following, should play a part in management's decisions.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) the frequency with which all or certain items or segments should be counted?	Determine frequency of counts		
b) if the frequency of counts should be weighted to certain items or segments?	Determine frequency of counts		
c) if items to be counted should be selected randomly or otherwise?	Determine frequency of counts		

Document your conclusions for determining count frequency below. (e.g., *Items in inventory segment(s) (ABC) will be randomly selected from a diminishing pool and counted, or cycled through, 4 times a year; segment(s) (XYZ) will all be counted once a month during the midnight shift.*)

3) Organize the count team(s)—The selection and organization of appropriate count team(s) is critical to controlling the count process and achieving accurate results. Considerations of who is going to perform, supervise, record, evaluate, and analyze the results of the count should be made by management after considering the following issues.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) whether adequate segregation of duties can be accomplished?	Maintain segregation of duties		
b) whether the degree and level of supervision is appropriate?	Provide adequate supervision		
c) whether blind counts should be required?	Maintain segregation of duties & perform blind counts		

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
d) who should do counts subsequent to the first count?	Execute physical count		
e) how many people should be on a count team?	Maintain segregation of duties		
f) how many count teams are needed?	Execute physical count		
g) whether count team members are knowledgeable of the inventory and count process?	Enlist knowledgeable staff		
h) whether the necessary training has been provided to team members?	Enlist knowledgeable staff		
Document your conclusions for organizing the count teams below. (e.g., All cycle counting of the (ABC) and wall to wall counting of th (XYZ) segment(s) will be accomplished and/or supervised by individual members of the independent inventory audit group, Six two-person wall to wall count teams will be supplemented by shift warehousemen. All counts will be blind counts.)			

Counting	1) Accomplish appropriate cutoff		
	2) Perform preinventory activities		
	3) Count the inventory		
1) Accomplish appropriate cutoff —The difficulties in achieving an accurate physical count of quantities on hand increase when items are moving into and out of, as well as between warehouse locations during the count. The risks to be concerned about include (1) not counting items that are moving, (2) counting items more than once that have moved, (3) counting items not yet recorded in the inventory records, or (4) counting items that have been removed from the inventory records. These risks exist for inventory movement at primary inventory locations, off-site storage, contract warehouses, consignment, and other locations. Management should weigh these risks and consider the following issues when deciding how to control them.			
Have You Considered	Report Section Providing Guidance	(Yes, (N)o, N/A	Notes/Comments
a) suspending shipping, receiving, production, etc., during the count	Ensure completeness of the count		
b) the risk of relying on your system for control of cutoff issues?	Ensure completeness of the count		
c) other methods of reducing the risk of improper cutoff?	Ensure completeness of the count		
d) the risk of cutoff at the contractor warehouse and other inventory locations?	Ensure completeness of the count		
Document your conclusions for accomplishing cutoff below. (e.g., Temporary HOLDS, restricting movement into and out of item locations, will be placed on the daily cycle count items. Holds will be released as counts are completed, no later than the end of the day. All movement of all wall to wall count items will be suspended during the count.)			

2) Preinventory preparation—Prior preparation of the inventory, and the warehouse area housing it, can greatly increase the efficiency and accuracy of accomplishing the physical count of inventory on hand. Management should include the following in its consideration of preinventory issues.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) organizing the inventory and warehouse to facilitate the count process?	Ensure completeness of the count		
b) identifying and segregating certain slow moving, excess, obsolete, and reserved items from other items?	Ensure completeness of the count		
c) precounting and increasing control of segregated, slow moving, excess, obsolete, and reserved items?	Ensure completeness of the count		

Document your conclusion for preinventory preparation below (e.g., warehouse routine is expected to maintain (ABC) inventory segments in a count-ready condition. The day prior to wall to wall counts, warehouse personnel will be detailed, under supervision of the inventory audit group, to label, straighten, and precount as necessary.)

3) Count the inventory—Actually counting the inventory is a critical step and deserves an appropriate level of attention and control. There are a number of options available in the process of the count and decisions in one area will affect decisions in another area. The following are issues that management should include in making those decisions.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) how information about the item to be counted will be communicated to the counter?	Execute physical count		
b) what record data elements (e.g., quantities, description, location) should be provided to the counter?	Execute physical count		

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
c) the pros and cons of requiring blind counts?	Perform blind counts		
d) what record data elements the counter(s) are to verify?	Execute physical count		
e) the total lapse of time allowable to complete counting (including appropriate research) before requiring an adjustment?	Execute physical count & perform research		
f) when to require recounts (e.g., if first count does not equal record amount)?	Execute physical count		
g) how many recounts to require (e.g., until two counts equal)?	Execute physical count		
h) how the count supervisor will verify that the count is complete?	Provide adequate supervision & ensure completeness of the count		
i) how data elements verified for each item will be captured during the count (e.g., count sheets)?	Execute physical count & perform research		
j) how and by whom will the count's actual results be posted to the inventory system?	Execute physical count & maintain segregation of duties		
k) who should conduct recounts or verification of completed counts (e.g., someone other than the first counter)?	Execute physical count		
l) how to verify that all items selected for counting have been counted?	Ensure completeness of the count		
Document your conclusions for counting the inventory below. (e.g., item description, number, and location only will be provided to and verified by cycle and wall to wall counters on sheets generated by the inventory locator system. Quantities counted will be recorded on the count sheet and compared to record on-hand balances maintained by the inventory audit group supervisor. Recounts, until two counts agree, will be conducted by an inventory audit group individual other than the original counter, The original counter will conduct and document research and propose needed adjustments to the group supervisor.)			

Research and Adjustments

- 1) Perform research
- 2) Adjust the record

1) Perform research—In the event of a discrepancy between the actual physical count and the recorded data element, appropriate research designed to determine the reason for the difference should be performed. The following are issues management should include in its considerations when making decisions of when to and who should conduct such an investigation.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) when and where it may be appropriate to establish acceptable variances not requiring research?	Perform research		
b) the extent to which research should be performed?	Perform research		
c) using error codes to track the trends and frequency of the causes of discrepancies?	Perform research		
d) the required documentation and retention period for the research and adjustment of the records?	Perform research		
e) when discrepancies should be referred to management and/or security for investigation?	Perform research		
f) whether there should be a limit on the amount of time allowed to research a discrepancy before requiring an adjustment?	Perform research		
g) whether persons performing root cause analysis have responsibilities in areas of conflicting interest?	Perform research & segregation of duties		

Document your final conclusions for research and adjustments below (e.g., All variances between physical count and record amounts are to be researched, or variances of less than X percent are to be adjusted without research, etc.).

2) Adjust the record—Adjustments to the record are most critical when they affect on-hand quantities. Such adjustments will likely directly affect information used to make managerial decisions. They will also establish new quantity levels for effective internal controls designed to safeguard assets from unauthorized use of disposition. The following are issues management should include in its consideration when making decisions on who should make adjustments and how adjustments to on-hand quantities should be made.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/ A	Notes/Comments
a) what levels of authorization to require for adjustments to on-hand balances?	Perform research		
b) how to allow for and control exceptions to authorization requirements?	Perform research		
c) whether there should be a limit on the amount of time allowed to elapse before an adjustment is required?	Perform research		
d) whether persons making adjustments to on-hand balances have responsibilities in areas of conflicting interest?	Maintain segregation of duties		

Document your conclusions for adjusting the records below (e.g., Adjustments to on-hand balances exceeding \$XXX required documented approval by (middle management position), those exceeding \$XX,XXX require documented approval by (senior management position), etc.).

Evaluation of Results

- 1) Determine the record accuracy rate
- 2) Consider other performance measures
- 3) Communicate the results of the count

1) Determine the record accuracy rate—Inventory systems usually provide management information upon which potentially critical mission readiness and financial resource decisions are based. An appropriately calculated record accuracy rate is a telling measure of how dependable your inventory system is at maintaining accurate information. The following are issues management should include in its considerations when making decisions for calculating an inventory accuracy rate.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) when discrepancies in the record will be considered errors in the accuracy rate calculations?	Evaluate count results		
b) the actual mathematical calculation to be used in determining the accuracy rate?	Evaluate count results		
c) how you will use the results of the accuracy rate calculation?	Evaluate count results & establish accountability		

Document your conclusions for evaluation of results below. (e.g., *Discrepancies between any elements (e.g., number, description, location, quantity) verified by counters are considered errors. Or, quantity differences exceeding established tolerances are considered errors, etc.)*)

2) Consider other performance measures—The results of physical counts may be measured by methods other than record accuracy rates. The following are issues management should include in its considerations when making decisions for calculating an inventory accuracy rate.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) what other results/ measurements are appropriate to your needs?	Evaluate count results		
b) how other measures can be expressed in relevant terms?	Evaluate count results		

Document your conclusions for consideration of other performance measures below (e.g., Total net and total gross (quantity and/or value) adjustments to inventory over a period of time shall be considered to determine the effectiveness of the count and root cause analysis process, etc.)

3) Communicate the results of the count—To maximize the usefulness of the physical inventory count, the results should be communicated to management and lessons learned should be incorporated in planning for subsequent physical counts. The following are issues management should include in its considerations when making decisions in communicating the results of the physical count.

Have You Considered	Report Section Providing Guidance	(Y)es, (N)o, N/A	Notes/Comments
a) How and what results you will communicate to management?	Evaluate results and perform research		
b) how and what results you will communicate to counters?	Evaluate count results		
c) how and what results you will communicate to employees who are responsible in areas giving rise to record accuracy errors.	Evaluate count results		
d) changes indicated to existing policies and procedures by the results and considerations made above?	Evaluate count results & establish written policies		

Document your conclusions for communicating the results of the count below (e.g., Monthly written reports summarizing quantity and dollar amounts counted, adjustments made, results of root cause analysis, and frequency and trends in error codes will be prepared for management review, etc.)

Command Inventory Plan (Sample)

Subj: PERSONAL PROPERTY TRIENNIAL INVENTORY PLAN

Ref: (a) SECNAVINST 7320.10 of 1 Aug 2001

Encl: (1) Command Triennial Inventory Schedule for 1 Oct 2002 to 30 Sep 2005

1. This document represents the Triennial Command Inventory Plan/Schedule for 01 October 2002 to 30 September 2005. This plan is a working document and will be updated as needed to meet the requirements of reference (a).
2. This Command Inventory Plan takes into consideration the five key components of the inventory process; planning, preparation, inventory assets, reconciliation, and closeout of the physical inventory.

A. Planning.

- Inventory dates should not be scheduled during an important operational date.
- Review the SECNAVINST 7320.10 to ensure all inventory process requirements will be met.
- Determine the types/number of assets to be inventoried (all items will be inventoried).
 - ⊙ Capital Assets: 120
 - ⊙ Minor Assets: 1,707
 - ⊙ Sub-Minor Assets: 0
 - ⊙ Pilferable Assets: 99
 - ⊙ Sensitive Assets: 0
 - ⊙ Cryptographic Assets: 227
- Types of inventory to be conducted.
 - ⊙ Cyclic Inventory.
 - ✓ Automated Inventory.
 - ⌚ For HRHs exceeding 25 records.
 - ✓ Manual Inventory.
 - ⌚ For HRHs with 25 or fewer records.
 - ✓ 36 Inventories
 - ✓ Inventories to be conducted throughout period.
 - ⊙ ND PP& E will be inventoried annually.
 - ⊙ Cryptographic assets will be inventoried annually.
 - ⊙ Pilferable assets will be included in the Cyclic Inventory.
- Inventory start date is 1 Feb 03.
- Inventory counts will be completed NLT 30 days from the start of the inventory count process.
- Reconciliation of inventory discrepancies will be completed NLT 30 days after completion of inventory counts.
- Contact the Navy PP&E Management Support Team to ensure Cyclic Inventory default parameters are set in the UIC table in DPAS to support the command's cyclic inventory plan.

- Using automated/manual inventory procedures the following personnel assignments are established.
 - ⊙ Two inventory teams required.
 - ✓ Comprised of two members each.
 - ⌚ One individual will count/scan.
 - ⌚ One will assist with material identification and "mark" inventoried assets.
 - ✓ Teams will be assigned to separate locations within the command.
- Notify all personnel (in writing) cyclic inventories will be conducted including the following as a minimum.
 - ⊙ Responsible Officers
 - ⊙ Hand Receipt Holders
 - ⊙ Sub Hand Receipt Holders
 - ⊙ Count team members.
 - ⊙ May need to provide assistance during inventory.
 - ✓ Identifying assets.
 - ✓ Obtaining documentation.
 - ✓ Notify PPM prior to movement of any assets/records during the inventory.
 - ⊙ Inventory Start Date is 1 Feb 03.
- Determine type of "marking" system for count teams to ID those assets/locations that have been inventoried.
- Obtain/verify two Symbol 7242 and/or Intermec 2415 bar code scanners are or will be available for the inventory.
- Determine capability to print bar code labels and location labels.
 - ⊙ Obtain/identify bar code label printer for use during the inventory.
 - ⊙ Perform inquiry in DPAS to determine the potential number of location bar code labels required prior to start of inventory.
- Ensure availability of IT department personnel during the inventories if required.
- Scanner capacity will support inventory time frames. Depending on the type a maximum of 1200 records can be recorded on each scanner.
- Establish working hours for inventory count teams. Mon-Fri 0800-1630.
- Plan to QA the inventory results.

B. Preparation.

- Cyclic (automated and manual) inventories are being conducted and will include all assets/records in DPAS.
- The Last Inventory Dates and the Next Inventory Dates contained in the inventory schedule have been posted to the Maj/Sub Hand Receipt Holder section of DPAS. This will align the inventory due dates for Hand Receipt Holders in DPAS with the Command Inventory Plan.
- Prepare/run a DPAS on line Hand Receipt Reports for each Hand Receipt Holder for use as a reference during inventory if required.
- Verify all scanners have been configured for use with DPAS.
- Scanner batteries are fully charged.
- Ensure bar code printer is operational.
- Draft pre inventory training lesson plan.
- Obtain colored tape for "marking" assets/locations inventoried and assets without bar code labels.
- Set user default values in DPAS for printing location labels.
- Ensure bar code location labels are affixed to all physical locations. Print and affix location labels as required.
- Assign the locations/areas that each inventory count team will be responsible for inventorying.

- Initialize the next Cyclic and/or Hand Receipt Holder inventory and generate the Hand Receipt Inventory Report in DPAS.
- Initialize and generate a Hand Receipt Inventory Report for Cryptographic and ND PP&E that are to be inventoried annually.

C. Inventory Assets.

- Cyclic (automated and manual) inventories are being conducted and will include all assets/records in DPAS.
- Conduct pre-inventory training to ensure all count team members are briefed and know what is required. Topics to include are:
 - ⊙ Count phase.
 - ⊙ Marking inventoried assets.
 - ⊙ Possibility of recounts exists.
 - ✓ A second count is usually required when any count differences are noted.
 - ✓ A third count sometimes happens when the first and second count are different.
 - ⊙ Technical research may be required in identifying material.
 - ⊙ Personnel may also be required to assist in other areas under inventory due to volume of material.
 - ⊙ Directions for those items found during the inventory that are not in the scanner.
 - ⊙ Annotate the Inventory Overage List accordingly.
 - ⊙ Return the list to the PPM for research.
 - ⊙ Questions can be fielded and discussed.
- Provide count teams the Inventory Overage List for recording assets found during the inventory but not listed in the scanner.
- Verify each scanner is operational and configured correctly.
- Export inventory data from DPAS to scanners.
- Issue each count team a bar code scanner.
- Ensure count team members are familiar with scanner operation and functionality.
- Provide completion tags (colored tape) to "mark" those assets/locations inventoried and assets without bar code labels.
- Establish a "command center" for problems, which may be encountered.
- All inventory results/scanners are to be returned to the PPM daily.
- Import scanner data to DPAS.
- PPM produces Reconciliation Reports.

D. Reconciliation.

The reconciliation process is used to establish agreement between two sets of independently maintained but related records. Subsequent to the first count, discrepancies between the actual physical inventory count and the last recorded on-hand-balance in DPAS must be reconciled.

- PPM obtains Reconciliation Reports from DPAS.
- Review physical counts for errors.
 - ⊗ Recount as necessary.
 - ⊗ Conduct location audits.
- Review each category listed on the Reconciliation Report.
 - ⊗ Shortages.
 - ✓ Determine cause of shortage.
 - ⌚ Missing.
 - ⌚ Stolen.
 - ⌚ Incorrect location/HRH assigned.
 - ✓ Annotate record in DPAS with a suspected loss code of "I" (needs further investigation).
 - ✓ Review paperwork (expenditure documents, etc) for posting errors.
 - ✓ Take appropriate action in DPAS to correct discrepancy.
 - ⊗ Overages.
 - ✓ Determine cause of overage.
 - ⌚ New receipt.
 - ⌚ New transfer-in.
 - ⌚ Incorrect location/HRH assigned.
 - ✓ Forward to appropriate Responsible Officer/HRH/S-HRH for research/documentation.
 - ✓ Review paperwork (receipts, bills of lading, etc) for posting errors.
 - ✓ Take appropriate action in DPAS to correct discrepancy.
 - ✓ Non-labeled assets.
 - ⌚ Determine cause of Non-labeled asset.
- Take appropriate action in DPAS to correct Reconciliation Report exception codes listed on report.
- Annotate corrective action taken on Reconciliation Report.
- Reconciliation of inventory must be completed NLT 30 days after the completion of each inventory count cycle.

E. Closeout the physical inventory.

- Process an end item inquiry in DPAS to ensure there are no records annotated with a suspected loss code of "I".
- For new capital assets added to DPAS as a result of the inventory ensure all are activated for depreciation.
- Upon completion of reconciliation close the inventory in DPAS.
- Print Hand Receipt Report for signature.
- Obtain signatures from HRHs for inventoried assets.
- Maintain all annotated Reconciliation Reports until next inventory.
- Submit a physical inventory completion letter via chain of command to major claimant and the conclusion of the triennial inventory period.
- Conduct post inventory review/analysis to determine those actions necessary to prevent future inventory discrepancies.

Skill Builder: PowerPoint Presentation

Objectives: You will:

- Discussion Questions

Complete the following exercise:

1. Testing equipment and training inventory team personnel are done during which phase of the inventory process?

A. Planning	D. Reconciliation
B. Preparation	E. Close out
C. Inventory assets	

2. Industry Best Practices states that the physical inventory discrepancies must be researched and resolved within _____ after physical validation

A. 30 days	C. 90 days
B. 60 days	D. 120 days

3. The most common performance indicator of a successful inventory is having a surplus stock of assets.
(True or False)
True _____ False _____

4. Creating schedules, determining resources, and getting leadership commitment and approval is which part of the inventory process?

A. Planning	D. Reconciliation
B. Preparation	E. Close out
C. Inventory assets	

5. During which phase of the inventory process would an assessment of the management controls and processes occur?

_____	Counting
_____	Reconciliation
_____	Planning
_____	Preparation

6. What is the proper order of phases in the inventory process?

_____ Inventorying assets

_____ Planning

_____ Close out

_____ Preparation

_____ Reconciling

7. The key elements involved in the post inventory review process include: collect documentation, review inventory performance goals, measure performance goals, and _____.

A. Close out the inventory C. Schedule future inventories

B. Perform trend analysis D. Transfer assets to another HRH